

9. (Original) The demodulator as set forth in Claim 8 wherein said code selection circuit outputs one of  $2^M$  N-bit data symbols corresponding to said identified accumulator containing said maximum <sup>sum</sup> value.

10. (Original) The demodulator as set forth in Claim 9 wherein  $N = 6$  and  $M = 2N = 64$ .

11. (Original) The demodulator as set forth in Claim 10 wherein  $S = 64$ .

12. (Original) The demodulator as set forth in Claim 11 wherein said orthogonal modulation codes are Walsh codes.

13. (Currently Amended) A code division multiple access (CDMA) wireless network comprising a plurality of base transceiver stations capable of communicating with access terminals located in a coverage area of said wireless network, wherein a first one of said plurality of base transceiver stations comprises:

a demodulator for demodulating a set of  $S$  possible orthogonal modulation codes received serially as binary data, wherein each of said  $S$  possible orthogonal modulation codes comprises  $M$  binary bits representing an N-bit data symbol and wherein  $M = 2^N$ , said demodulator comprising:

21. (Original) The CDMA wireless network as set forth in Claim 20 wherein said code selection circuit outputs one of  $2^M$  N-bit data symbols corresponding to said identified accumulator containing said maximum <sup>sum</sup> value.

22. (Original) The CDMA wireless network as set forth in Claim 21 wherein  $N = 6$  and  $M = 2^N = 64$ .

23. (Original) The CDMA wireless network as set forth in Claim 22 wherein  $S = 64$ .

24. (Original) The CDMA wireless network as set forth in Claim 23 wherein said orthogonal modulation codes are Walsh codes.